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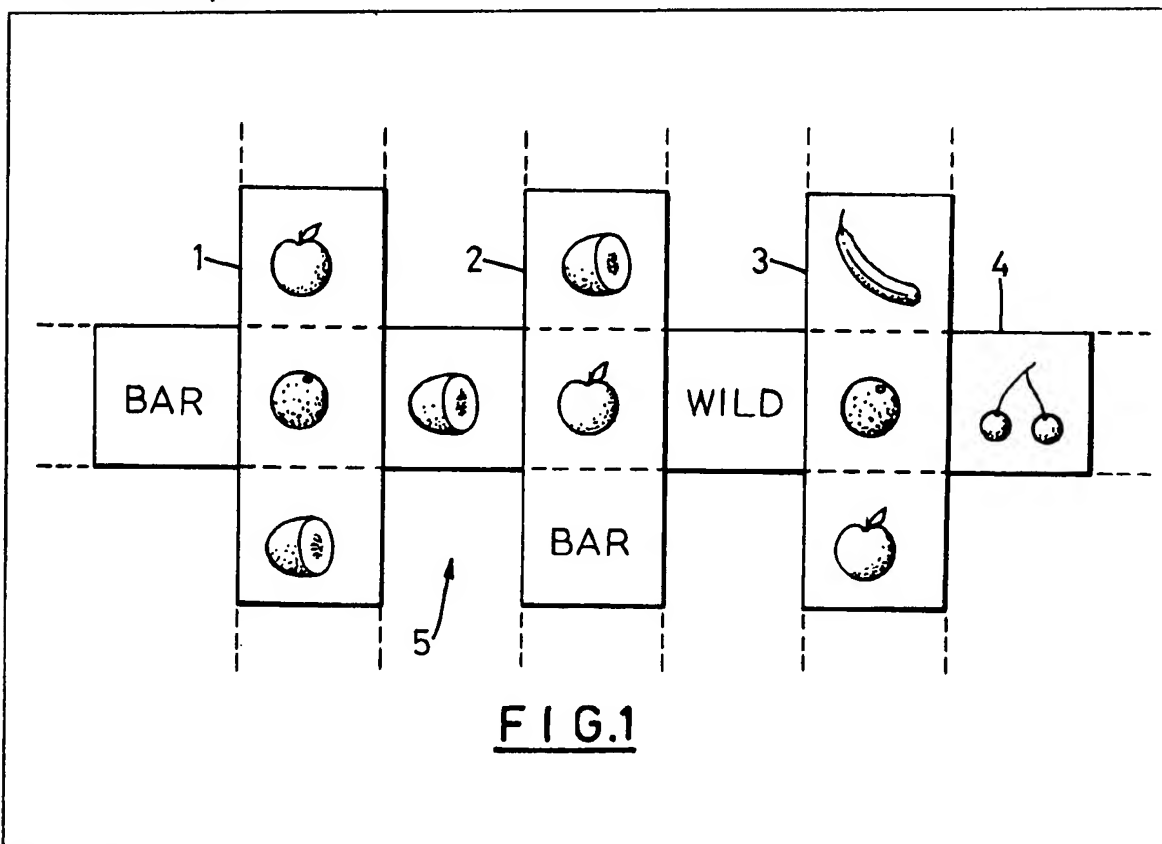
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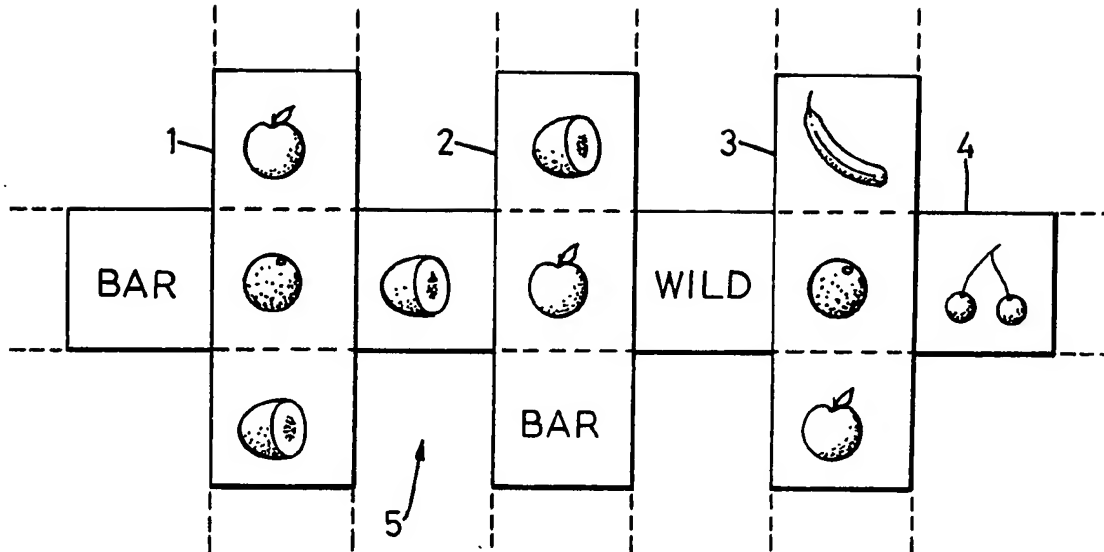
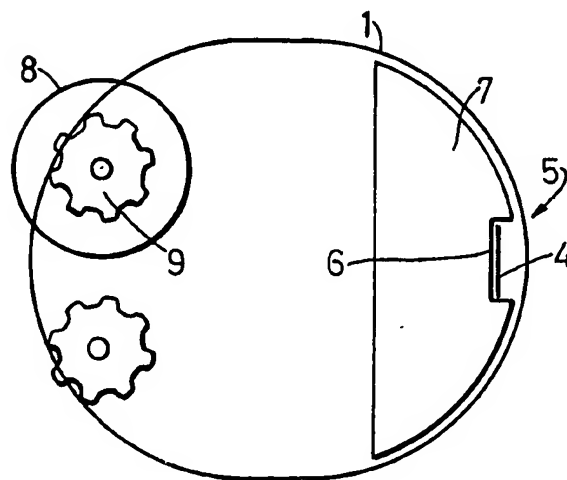
(54) Game-playing machines

(57) A fruit machine comprises three vertical endless flexible strips 1, 2 and 3 and a horizontal endless flexible strip 4 movable through a viewing zone 5. The horizontal strip 4 runs behind the vertical strips 1, 2 and 3 and may be indexed either with the strips 1, 2 and 3 in response to actuation of a game-initiating button or on its own, or with one or more of the strips 1, 2 and 3, in response to actuation of a subsidiary button for initiating a subsidiary game feature, such as "nudge", "skip" or "shuffle". A win is awarded if, when the strips have stopped rotating, a winning combination of three consecutive symbols along a line extending vertically, horizontally or diagonally is visible in the viewing zone 5.



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FIG. 1FIG. 2

## SPECIFICATION

## Game-playing machines

5 This invention relates to game-playing machines, such as those known as "fruit machines".

Fruit machines conventionally incorporate three or more rotary members, such as reels or endless strips, disposed side-by-side and bearing symbols viewable in a viewing zone, or a representation of such rotary members, referred to hereafter as "quasi-rotary members", on a video or projection screen. The symbols generally represent various fruits, although it will be understood that the term "fruit machine" may be applied to machines having rotary members bearing symbols other than fruits. During a game the rotary members are spun or appear to be spun about a common horizontal axis so that the symbols move vertically through the viewing zone. When the rotary members come to rest, the combination of symbols showing in the viewing zone determines whether or not a win is awarded.

It is an object of the invention to provide a new form of fruit machine which is capable of displaying more fruit symbols and more possible combinations of symbols in the viewing zone, and which may incorporate a number of subsidiary game features.

According to the invention there is provided a game-playing machine comprising a plurality of rotary or quasi-rotary members bearing symbols and displaying at least one line of symbols in a viewing zone, and means for rotating the rotary members to alter the combination of symbols in the viewing zone, at least one of the rotary members being rotatable about a vertical axis to move the symbols thereon horizontally through the viewing zone.

In a preferred embodiment of the invention at least one other rotary member is rotatable about a horizontal axis to move the symbols thereon vertically through the viewing zone.

The invention also provides a game-playing machine comprising a plurality of rotary or quasi-rotary members bearing symbols and displaying at least one line of symbols in a viewing zone, and means for rotating the rotary members to alter the combination of symbols in the viewing zone, at least one of the rotary members being provided with one or more windows through which a symbol behind the window may be viewed when the window is in the viewing zone.

The machine is preferably provided with at least one vertical rotary member rotatable about a horizontal axis and at least one horizontal rotary member rotatable about a vertical axis, the symbols on at least one vertical or horizontal rotary member being viewable through at least one window in at least one horizontal or vertical rotary member when in the viewing zone. Alternatively the or each symbol viewable through the window(s) may be provided on a stationary member.

In order that the invention may be more fully understood, a fruit machine in accordance with the invention will now be described, by way of example,

with reference to the accompanying drawings, in which:

*Figure 1* is a diagrammatic representation of the viewing zone of the machine; and

*Figure 2* is a diagram showing the drive arrangement of the machine.

The illustrated machine comprises three vertical endless flexible strips 1, 2 and 3 and a horizontal endless flexible strip 4 movable through a viewing zone 5. The strip 4 runs behind the strips 1, 2 and 3 in a slot 6 provided in a guide 7. Each strip is driven bidirectionally by a synchronous or stepping motor such as 8 by way of a sprocket wheel such as 9. A win is awarded when the strips have stopped rotating at the end of a game if a winning combination of three consecutive symbols along a line extending vertically, horizontally or diagonally is visible in the viewing zone 5. A bonus is awarded if a winning combination of five consecutive symbols is visible along the central horizontal line.

The horizontal strip 4 may be indexed, together with the vertical strips 1, 2 and 3, in response to actuation of a button for initiating a main game. Alternatively, or additionally, the horizontal strip 4 may be indexed, on its own or with one or more of the other strips 1 to 3, in response to actuation of a subsidiary button for initiating a subsidiary game feature, such as a "nudge", "skip" or "shuffle". Only some of the strips may be "valid" at any one time for a winning combination, and these may be indicated by appropriate backlighting.

In a modification of the above-described machine one or more of the vertical strips 1, 2 and 3 is provided with at least one transparent window in place of a symbol. When one of the vertical strips 1, 2 and 3 comes to rest at the end of a game with a window aligned with the horizontal strip 4 in the viewing zone 5, the symbol on the horizontal strip 4 which is behind that vertical strip will be visible through the window in the vertical strip and this symbol may therefore contribute to a winning combination as though it were on the vertical strip.

It should be appreciated that similar arrangements to those described above could be provided in a video fruit machine although, in that case, the three vertical strips and single horizontal strip would be replaced by representations of vertical and horizontal rotary members on a video screen.

## 115 CLAIMS

1. A game-playing machine comprising a plurality of rotary or quasi-rotary members bearing symbols and displaying at least one line of symbols in a viewing zone, and means for rotating the rotary members to alter the combination of symbols in the viewing zone, at least one of the rotary members being rotatable about a vertical axis to move the symbols thereon horizontally through the viewing zone.

2. A game-playing machine according to claim 1, wherein at least one other rotary member is rotatable about a horizontal axis to move the symbols thereon vertically through the viewing zone.

3. A game-playing machine according to claim 2,

wherein, when the rotary members are at rest, symbols on one or more rotary members rotatable about a vertical axis alternate with symbols on other rotary members rotatable about a horizontal axis in the viewing zone.

4. A game-playing machine according to claim 2, wherein symbols on at least one rotary member rotatable about a horizontal or vertical axis are viewable through at least one window in at least one other rotary member rotatable about a vertical or horizontal axis when in the viewing zone.

5. A game-playing machine comprising a plurality of rotary or quasi-rotary members bearing symbols and displaying at least one line of symbols in a viewing zone, and means for rotating the rotary members to alter the combination of symbols in the viewing zone, at least one of the rotary members being provided with one or more windows through which a symbol behind the window may be viewed when the window is in the viewing zone.

6. A game-playing machine according to any preceding claim, wherein the rotary members are represented on a video screen.

7. A game-playing machine according to any preceding claim, wherein the machine is a fruit machine.

8. A game-playing machine substantially as hereinbefore described with reference to the accompanying drawing.